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EXAMINER	
SANTOS, JOSEPH M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/599,322
Filing Date: September 25, 2006
Appellant(s): SCHEIRER ET AL.

US Phillips Corporation
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 04/01/2010 appealing from the Office action mailed 11/18/2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-15 are pending and stand finally rejected.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

4,802,458	Finsterwald et al.	2-1989
6,182,341	Talbot et al	2-2001
5,311,095	Smith et al	05-1994
5,488,954	Sleva et al	2-1996

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-15 are rejected under 35 U.S.C. 112 as being indefinite because the term "the transducer mechanism" in claim 1 lacks antecedent basis. It is unclear that the term "a movable mechanism" would provide antecedent basis to the use of the term "the transducer mechanism".

Claims 1-13 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Finsterwald et al. (4,802,458) in view of Talbot et al. (6,182,341). Finsterwald et al. disclose a ultrasonic probe for diagnostic imaging comprising a transducer ("46") located in a bath of ultrasonic fluid (Column3, lines 5-6). Finsterwald et al. further disclose a transducer crystal 46 mounted in the probe (Column 2, lines 17- 20) in which the hand-held transducer probe is easy and convenient to use and manipulate (Column 1, lines 20-24). Finsterwald et al. disclose a cone assembly ("22") which is moved during the fluid filling of the probe (Column 3, lines 7-10) in which an acoustic window (portion of element "22") is located in the cone and ultrasonic energy pass to and from the transducer (Column 3, lines 24-26). In addition, Finsterwald et al. further discloses the transducer probe is provided with a sector scanning capability by oscillating the transducer crystal (Column 2, lines 14-17). Finsterwald et al. further discloses in Figure 2, element 46, the curved shape of the "imaging transducer". However, Finsterwald et al. fails to disclose a

conductive layer lining the acoustic window, made of gold or titanium, coupled to a reference potential. Finsterwald et al. further fail to disclose the conductive layer is located on the inner surface of the acoustic window and is placed using a vacuum deposition process. Finsterwald further fail to disclose a dome-shape or flat contact lens-shape acoustic window. Talbot et al., in the same field of endeavor, teach a medical ultrasound acoustic window. Talbot et al discloses the adhesion process of the (dome-shaped or flat contact lens-shaped cap) acoustic window 56 and a layer or conductive layer 54 ("RFI shield"), (Column 5, lines 18-21). Talbot et al. further disclose the RFI shield is couple to a reference potential "ground" by connection to "ground flex circuits" (Column 5, lines 4-8). Talbot et al. further disclose the acoustic window 56 is cast directly on top of an epoxy layer 62, in which this epoxy layer is deposited over the top surface of the RFI shield (Column 5, lines 26-31). Talbot et al. further disclose the metal of the RFI shield may be selected from the group including gold, titanium, chromium or alloys thereof (Column 5, lines 43-45). In addition, the conductive layer has a porous surface (Column 6, lines 34-35). It would have been an obvious to one ordinary skilled in the art to have modified Finsterwald to add the conductive layer ("RFI shield") disclosed by Talbot et al. within the acoustic window located in the ultrasound probe apparatus disclosed by Finsterwald et al in order to provide a radio-frequency interference shield. The advantage of such a modification is to reduce the electromagnetic interference caused by the hospital or clinical environment which would produce noise in the ultrasound image acquired by the ultrasound probe (see Talbot col. 2, lines 11-20). In addition, it is well known expedient in the art to have ground flex circuits in an electrical system in order to provide a common electrical return path to electrical current (i.e. electrical ground). Therefore, it would have been obvious to one ordinary skilled in the art to have modified Finsterwald such that the RFI shield is electrically grounded through the ground flex circuits in order to provide electrical protection.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Finsterwald et al. (4,802,458) in view of Talbot et al. (6,182,341), as applied to claim 13 above, and further in view of Smith et al. (5,311,095). Finsterwald et al. in view of Talbot et al. teach the methods and systems disclosed above; however, Finsterwald et al. in view of Talbot et al. fail to disclose that the conductive layer exhibits a thickness of 1/16 of a wavelength or less of the frequency of the transducer. Smith et al., in the same field of endeavor, disclose that a conductive layer "10"

could be less that one quarter the wavelength of the frequency of operation (Column4, lines 32-45). It would have been obvious to one ordinary skilled in the art to adjust the thickness of the conductive layer to be less that 1/16 as disclose by Smith et al in order to increase the conductive layer sensitivity for high resolution medical imaging.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Finsterwald et al. (4,802,458) in view of Talbot et al. (6,182,341) as applied to claim 13 above, and further in view of Sleva et al. (5,488,954). Finsterwald et al. in view of Talbot et al. teach the methods and systems disclosed above; however, Finsterwald et al. in view of Talbot et al. fail to disclose wherein the conductive layer exhibits a thickness in the range of 1000-3000 Angstroms. Sleva et al., in the same field of endeavor, disclose the fabrication of a conductive aluminum layer having 1000 Angstrom of thickness (Column 7, lines 52-53). It would have been obvious at the time the invention was made to utilize a silver conductive layer of 1000 Angstroms of thickness in the ultrasound probe in order to increase the focusing characteristics of the conductive layer.

(10) Response to Argument

With regard to the 35 U.S.C. 112, second paragraph rejection, it is unclear that "a moveable mechanism" is the same mechanism as "the transducer mechanism". Proper antecedent basis are not provided for the term " the transducer mechanism" by simply reciting the term "mechanism".

With regard to the 35 U.S.C 103 (a) rejection of Finsterwald in view of Talbot et al, It should be noted, that Talbot invention set forth a method of manufacturing an improved coupling of acoustic window and lens for medical ultrasound transducers to be used in ultrasound probes for observing organs in the human body. The RFI shield 54 (i.e. conductive layer) disclosed in Talbot is made from the same materials as the claimed conductive layer (See Column 5, lines 43-45) . Therefore, the RFI shield 54 disclosed by Talbot will inherently provide the same shielding characteristics as the claimed conductive layer to any configuration of the ultrasound probe such as a fluid chamber.

With regard to the 35 U.S.C 103 (a) rejection of Finsterwald in view of Talbot et al, in further view of Smith. It is disclosed in Smith an "electrically conductive layer 10" having less that one quarter the wavelength of the frequency of operation (Column4, lines 32-45). In

addition, it should be noted that modifying the conductive layer of Finsterwald in view of Talbot et al to have the same claimed thickness would have been obvious to one ordinary skilled in the art. The advantage of such a modification is to increase the conductive layer sensitivity for high resolution medical imaging. In addition, such a modification would merely involve the substitution of one known type of conductive layer for another having the same claimed thickness. The substitution of one known element for another would have yielded predictable results to one ordinary skill in the art at the time of the invention.

With regard to the 35 U.S.C 103 (a) rejection of Finsterwald in view of Talbot et al, in further view of Sleva. Sleva discloses a conductive aluminum layer having a 100 angstrom thickness (see col. 7, lines 52-54). In addition, it should be noted that modifying the conductive layer of Finsterwald in view of Talbot et al to have the same claimed thickness would have been obvious to one ordinary skilled in the art. The advantage of such a modification is to increase the focusing characteristics of the conductive layer. In addition, such a modification would merely involve the substitution of one known type of conductive layer for another having the same claimed thickness. The substitution of one known element for another would have yielded predictable results to one ordinary skill in the art at the time of the invention.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/J.S./
Examiner, Art Unit 3737

Conferees:

/BRIAN CASLER/

Supervisory Patent Examiner, Art Unit 3737

/Brian K. Green/

Appeals Conference Specialist